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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,906	07/12/2005	Derek Geoffrey Finch	033963-015	6242

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EXAMINER	
BARKER, MATTHEW M	

ART UNIT	PAPER NUMBER
3662	

NOTIFICATION DATE	DELIVERY MODE
06/30/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/541,906	FINCH ET AL.	
	Examiner	Art Unit	
	MATTHEW M. BARKER	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-28 and 33-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-28 and 33-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-19, 21-28, and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Molyneux-Berry (EP 0851238 A2).

Regarding claim 17, Molyneux-Berry discloses a method of extracting a radial velocity characteristic of a target from one or more coherent radiation pulse bursts comprising the steps of :

-receiving radiation echo returns of the pulse bursts from a remote scene (page 5, line 37);

-processing the echo returns into in-phase (I) and quadrature (Q) components (page 5, lines 39-40);

-measuring returns at intervals to provide sampled data (page 5, lines 46-49);

-applying a predetermined function to the I-Q returns and modifying the predetermined function to match the sampled data as a function of velocity (page 4, lines 7-15);

-determining the target radial velocity in dependence upon said modification step of the predetermined function (page 11, lines 21-24); and

-outputting the determined target radial velocity (page 12, lines 11-12).

Regarding claim 18, Molyneux-Berry discloses the claimed optimized curve fitting (page 4, lines 20-25).

Regarding claim 21, Molyneux-Berry discloses extracting target amplitude from the sampled data (page 9, lines 8-13).

Regarding claim 22, Molyneux-Berry discloses extracting range ambiguity (page 2, lines 45-48).

Regarding claim 23, Molyneux-Berry discloses extracting azimuth from the sampled data (page 9, lines 30-31).

Regarding claims 24-26, Molyneux-Berry discloses that the pulse bursts are transmitted at non- constant PRI bursts at a frequency which is changed between successive pulses, and such echo returns are measured at non-equi-spaced intervals (page 4, lines 26-27).

Regarding claim 27, Molyneux-Berry discloses that the pulse bursts are internally coherent (page 2, lines 25-27) and mutually incoherent (page 4, lines 26-27: varied PRI on a burst of pulses basis).

Regarding claim 28, Molyneux-Berry discloses carrying out conventional MTI filtering before step (d) (page 4, lines 38-39).

Regarding claims 19 and 33, Molyneux-Berry discloses the claimed clutter return model (page 4, lines 44-51).

Regarding claims 34 and 35, Molyneux-Berry discloses that the pulse bursts are transmitted at non- constant PRI bursts at a frequency which is changed between successive pulses (page 4, lines 26-27).

Regarding claim 36, Molyneux-Berry discloses carrying out conventional MTI filtering before step (d) (page 4, lines 38-39).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Molyneux-Berry as applied to claim 19. .

Molyneux-Berry does not specify that the clutter model is a low order polynomial function. However, it is well known that a cutter signal may be represented as a polynomial function, and it would have been obvious to do so in the invention of Molyneux-Berry with no new or unexpected results.

Response to Arguments

5. Applicant's arguments, see Remarks, filed 2/19/2008, with respect to the rejection(s) of claim(s) 17-28 and 33-36 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Molyneux-Berry.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Doerry et al. relates to a MTI radar target detection system that measures radial velocity.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW M. BARKER whose telephone number is (571)272-3103. The examiner can normally be reached on M-F, 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew M Barker/
Examiner, Art Unit 3662

/Thomas H. Tarcza/

Supervisory Patent Examiner, Art Unit 3662